

1 August 1968

25X1

TITLE: Image Analysis Program

21 April 1967

Report No. TO-B 67-20 on Image Analysis

25X1

WORK PROGRAM: Infectious Development Experiment: Consisting Of Counting The Silver Halide Crystals (Singles and In Clumps) In Exposed Undeveloped Sub-Mono Grain Layer Model Emulsion Number N-2-0056.

MORE SPECIFICALLY

1. Photographed undeveloped film samples, from emulsion N-2-0056, under high magnification (1700x) and took a sufficiently large number of frames to encompass 9560 grains.

Micrographs were printed high contrast in the positive form on 8 x 10 inches D.W. Matt Photo Paper.

2. Determined how many single isolated grains there are and how many grains are situated in clumps by actually counting:

A. average total grains in all the eleven 8 x 10 photo prints (870 grains)

B. Average isolated single grains in all the eleven frames. (121 single grains)

C. Subtracted average total of single isolated grains from average total of all grains to yield total of grains in clumps. (749 in clumps)

D. Calculate average isolated singles as a percentage of average total grains counted in each 8 x 10 print.

121 grains or 14% average isolated single grains counted in a given area. (8" x 10" Photo print at 1700X)

3. See attachment 1.

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WORK PROGRAM: Infectious Development Experiments Consisting Of Counting
The Silver Halide Crystals (Singles and In Clumps) In
Exposed Undeveloped Sub-Mono Grain Layer Model Emulsion
Number N-2-0056.

Photomicrograph Plate Number	Silver Halide Isolated Single Crystals	Silver Halide Isolated Single Crystals	Silver Halide Crystals in Clumps	Silver Halide Crystals in Clumps
Number	Count	Per Cent	Count	Per Cent
1	112'	13%	729	87%
1-A	130	16%	670	34%
2	123	15%	712	85%
3	120	14%	762	86%
4	108	13%	750	87%
5	120	13%	784	87%
6	130	14%	763	86%
7	134	15%	786	85%
8	113	14%	712	86%
9	110	13%	761	87%
10	126	14%	805	86%
Total 11 Plates	1326 Singles		8234 In Clumps	
Averages	120.6	14%	748.6	86%